

In the Claims:

Please amend claims 1 and 11 as follows:

1. (currently amended) A method for creating customized mesh planes in electronic packages comprising the steps of:

receiving electronic package physical design data;

comparing signal traces in each adjacent plane to a mesh plane with a mesh layout of the mesh plane;

identifying signal traces in each adjacent plane to the mesh plane adjacent to mesh holes in the mesh layout of the mesh plane;

selecting a fill method to replace selected mesh holes with added mesh structure of the mesh plane aligned with the identified signal traces in each adjacent plane to the mesh plane.
2. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes the steps of providing a plurality of fill methods, said fill methods including selected ones of a crosshair fill method, a single line fill method, a signal mirror fill method, a mesh shifting fill method, a corner fill method, and a complete fill method; and selecting one or a combination of said fill methods.
3. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a crosshair fill method to replace selected mesh holes with a crosshair mesh structure aligned with the identified signal traces.

4. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a single line fill method to replace selected mesh holes with a single line mesh structure aligned with the identified signal traces.

5. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a corner fill method to replace selected mesh holes with a corner fill mesh structure aligned with the identified signal traces.

6. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a complete fill method to replace selected mesh holes with a complete fill mesh structure aligned with the identified signal traces.

7. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a signal mirror fill method to replace selected mesh holes with a signal mirror mesh structure substantially aligned with all of the signal traces.

8. (original) A method for creating customized mesh planes as recited in claim 1 wherein the step of selecting said fill method includes selecting a crosshair fill method to replace selected mesh holes with a crosshair mesh structure aligned with the identified signal traces; and a single line fill method to replace other selected mesh holes with a single line mesh structure aligned with the identified signal traces.

9. (withdrawn) A customized mesh plane created by comparing signal traces in each adjacent plane to a mesh plane with a mesh layout; and identifying signal traces adjacent to mesh holes in the mesh layout comprising:

a grid mesh plane defined by a plurality of uniformly spaced apart horizontal mesh traces and a plurality of uniformly spaced apart vertical mesh traces; and

a selected fill structure added to the mesh plane replacing selected mesh holes adjacent to the identified signal traces.

10. (withdrawn) A customized mesh plane as recited in claim 9 wherein said selected fill structure includes at least one of a crosshair mesh structure, a single line mesh structure, a signal mirror mesh structure, a mesh shifting mesh structure, a corner mesh structure, and a complete mesh structure.

11. (currently amended) A computer program product for creating customized mesh planes in electronic packages in a computer system, said computer program product including instructions executed by the computer system to cause the computer system to perform the steps of:

receiving electronic package physical design data;

comparing signal traces in each adjacent plane to a mesh plane with the mesh layout;

identifying signal traces in each adjacent plane to the mesh plane adjacent to mesh holes in the mesh layout of the mesh plane;

selecting a fill method to replace selected mesh holes with added mesh structure

of the mesh plane aligned with the identified signal traces in each adjacent plane to the mesh plane.

12. (original) A computer program product for creating customized mesh planes as recited in claim 11 includes the step of storing said fill method, said fill method including selected ones of a crosshair fill method, a single line fill method, a signal mirror fill method, a mesh shifting fill method, a corner fill method, and a complete fill method.

13. (original) A computer program product for creating customized mesh planes as recited in claim 12 wherein the step of selecting said fill method includes the steps of selecting one or a combination of said stored fill methods.

14. (original) A computer program product for creating customized mesh planes as recited in claim 12 wherein the step of selecting said fill method includes the steps of storing manufacturing design rules, and selecting said fill method responsive to said stored manufacturing design rules.